IN THE CLAIMS

· The following is a complete listing of pending claims with status identifiers in parenthesis.

LISTING OF CLAIMS

1. (Original) A system for re-routing traffic from a bi-directional Label Switched Path (LSP) comprising: an originating network device operable to: re-route traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; and transmit a switch over message along the alternate path in the forward direction to a merging network device responsible for re-routing traffic traveling along the bi-directional LSP in a backward direction to the alternate path in the backward direction.

2. (Original) The system of claim 1, wherein the originating network device is further operable to transmit a second message, along the alternate path in the forward direction, to the merging network device to allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected.

3. (Original) The system of claim 1, wherein the originating network device is a multi-protocol label switched (MPLS) device.

4. (Original) The system of claim 1 wherein the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction and another LSP carrying traffic in the backward direction.

5. (Original) The system of claim 1 further comprising a merging network device operable to receive the switch over message and to re-route traffic traveling along the bi-directional LSP in the backwards direction to the alternate path in the backwards direction based on the switch over message.

6. (Original) The system of claim 5, wherein, the merging network device is further operable to: receive a second message along the alternate path in the forward direction; and allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

7. (Original) The system of claim 5 wherein the merging network device is a MPLS device.

8. (Original) A merging network device operable to: receive a switch over message; and re-route traffic traveling along a bi-directional LSP in a backwards direction to an alternate path in the backwards direction based on the switch over message.

9. (Original) The device as in claim 8 further operable to: receive a second message along the alternate path in the forward direction; and allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

10. (Original) The device of claim 8 wherein, the merging network device is a MPLS device.

11. (Original) A method for re-routing traffic from a bi-directional LSP comprising the steps of: re-routing traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; and transmitting a switch over message along the alternate path in the forward direction to a merging network device responsible for re-routing traffic traveling along the bi-directional LSP in a backward direction to the alternate path in the backward direction.

12. (Original) The method of claim 11 further comprising the step of: transmitting a second message, along the alternate path in the forward direction, to the merging network device to allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected.

13. (Original) The method of claim 11 wherein the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction and another LSP carrying traffic in the backward direction

14. (Original) The method of claim 11 further comprising the steps of: receiving the switch over message; and re-routing traffic traveling along the bi-directional LSP in the backwards direction to the alternate path in the backwards direction based on the switch over message.

15. (Original) The method of claim 14 further comprising the steps of: receiving a second message along the alternate path in the forward direction; and allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

16. (Original) A method for re-routing traffic comprising the steps of: receiving a switch over message; and re-routing traffic traveling along a bi-directional LSP in a backwards direction to an alternate path in the backwards direction based on the switch over message.

17. (Original) The method of claim 16 further comprising the steps of: receiving a second message along the alternate path in the forward direction; and allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

18. (Original) A system for re-routing traffic comprising: an originating network device comprising: means for re-routing traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; and means for transmitting a switch over message along the alternate path in the forward direction to a merging network device responsible for re-routing traffic traveling along the bi-directional LSP in a backward direction to the alternate path in the backward direction.

19. (Original) The system of claim 18, wherein the originating network device further comprises means for transmitting a second message, along the alternate path in the forward direction, to the merging network device to allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected.

20. (Original) The system of claim 18 wherein the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction and another LSP carrying traffic in the backward direction.

21. (Original) The system of claim 1 further comprising a merging network device which comprises means for receiving the switch over message and means for re-routing traffic traveling along the bi-directional LSP in the

backwards direction to the alternate path in the backwards direction based on the switch over message.

22. (Original) The system of claim 21, wherein, the merging network device further comprises: means for receiving a second message along the alternate path in the forward direction; and means for allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

23. (Original) A merging network device comprising: means for receiving a switch over message; and means for re-routing traffic traveling along a bi-directional LSP in a backwards direction to an alternate path in the backwards direction based on the switch over message.

24. (Original) The device as in claim 23 further comprising: means for receiving a second message along the alternate path in the forward direction; and means for allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

25. (Original) A system for re-routing traffic comprising: means for re-routing traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; means for transmitting a switch over message, along the alternate path in the forward direction, for re-routing traffic traveling

along the bi-directional LSP in a backward direction; means for receiving the switch over message; and means for re-routing traffic traveling along the bi-directional LSP in a backwards direction to the same alternate path in the backwards direction based on the switch over message.